



Our experience with International Customers

How to achieve your mission goals



*Our experience with International Customers
have pointed to certain unavoidable truths*

The control of avoidable loss
remains one of the few areas
with major cost-reduction
potential.



Control of Avoidable Loss





Goals of any Loss Control Management Program

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graph TD; A[IDENTIFY all loss exposures] --> B[EVALUATE the risk]; B --> C[DEVELOP a plan]; C --> D[IMPLEMENT the plan]; D --> E[MONITOR the system];
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IDENTIFY all loss exposures

EVALUATE the risk

DEVELOP a plan

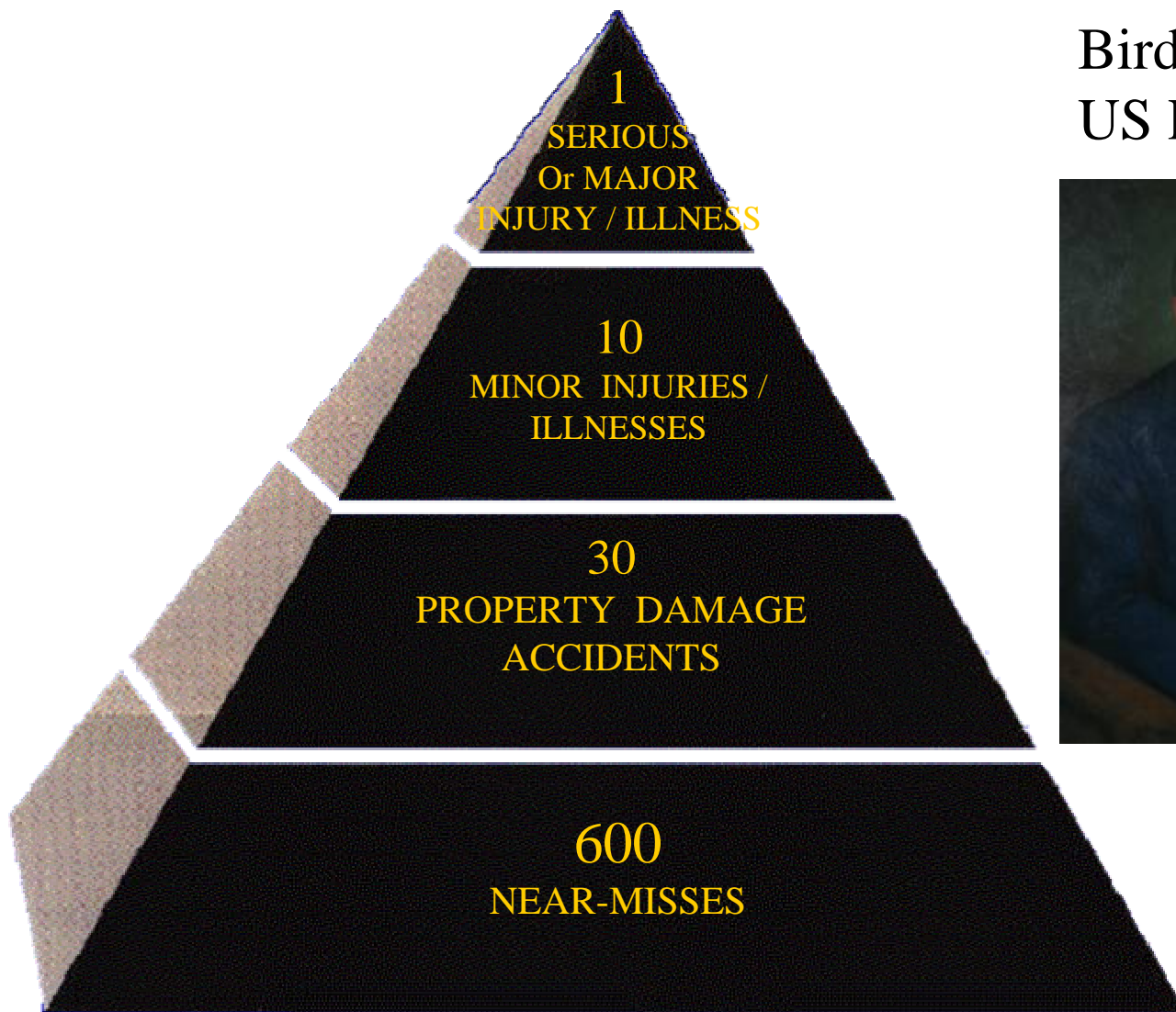
IMPLEMENT the plan

MONITOR the system



INCIDENT RELATIONSHIPS

Bird's 1969
US Ratio Study





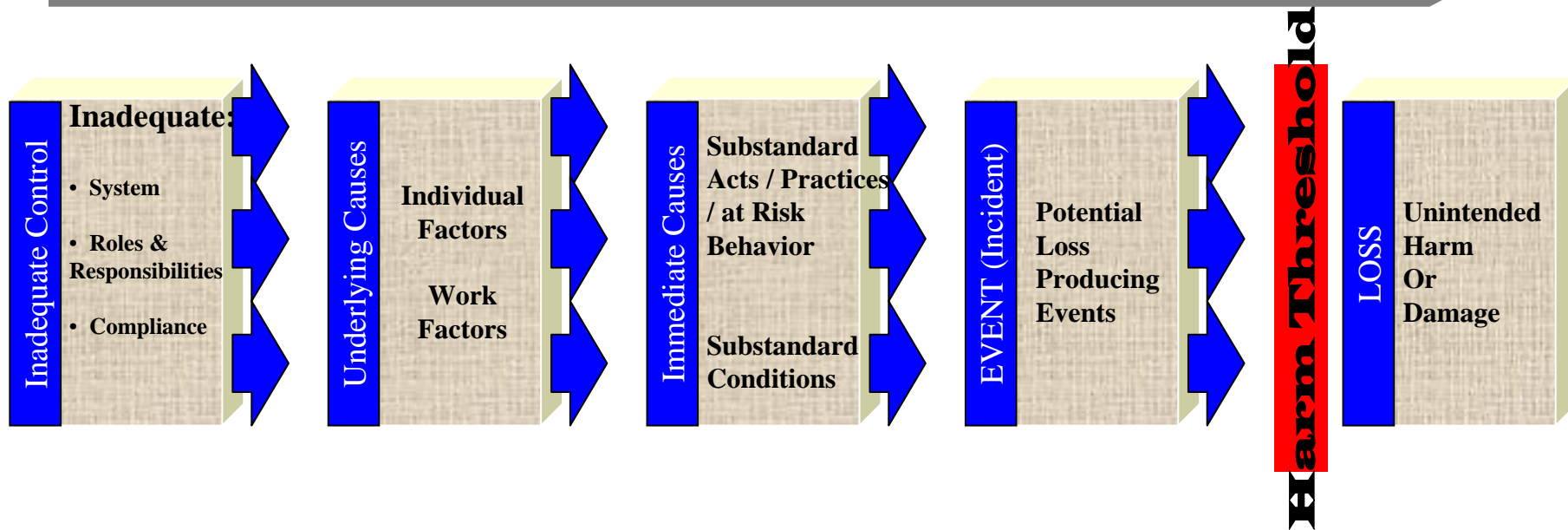
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The majority of losses result not
from employees' unsafe acts, but
from deficiencies in the
management system.

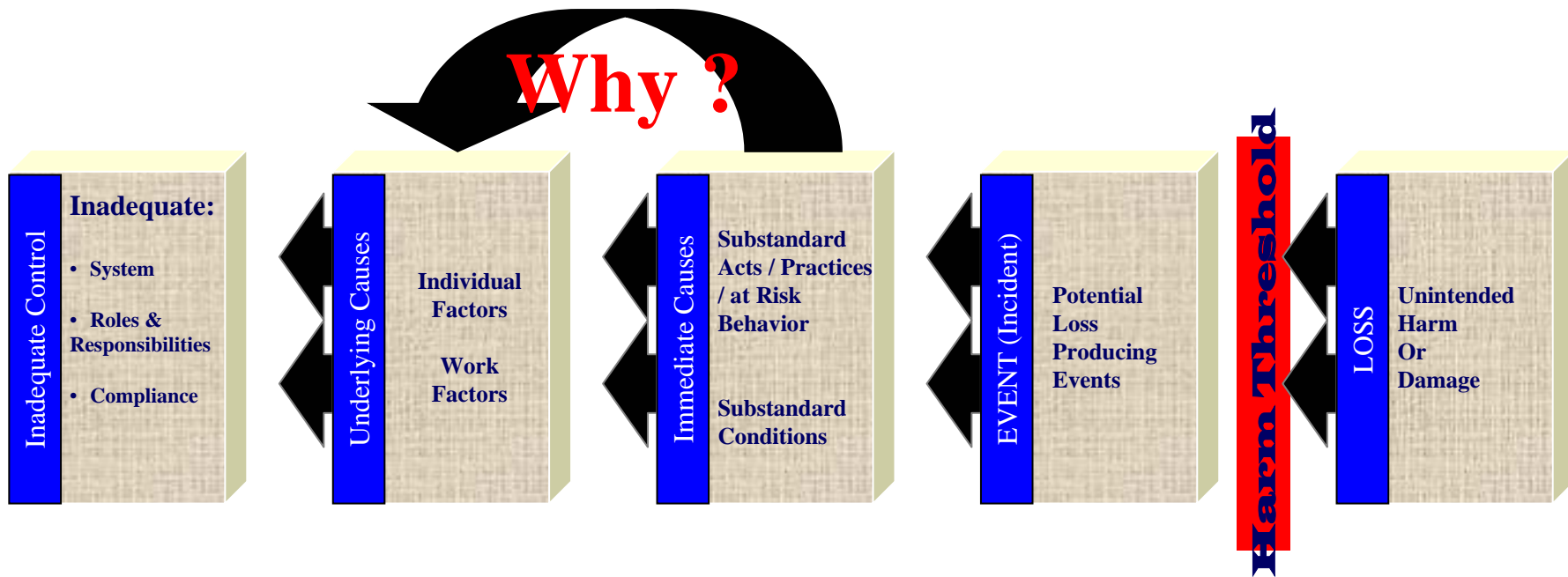


Bird's Incident Causation Model

Incident Causation Model



INCIDENT CAUSATION MODEL



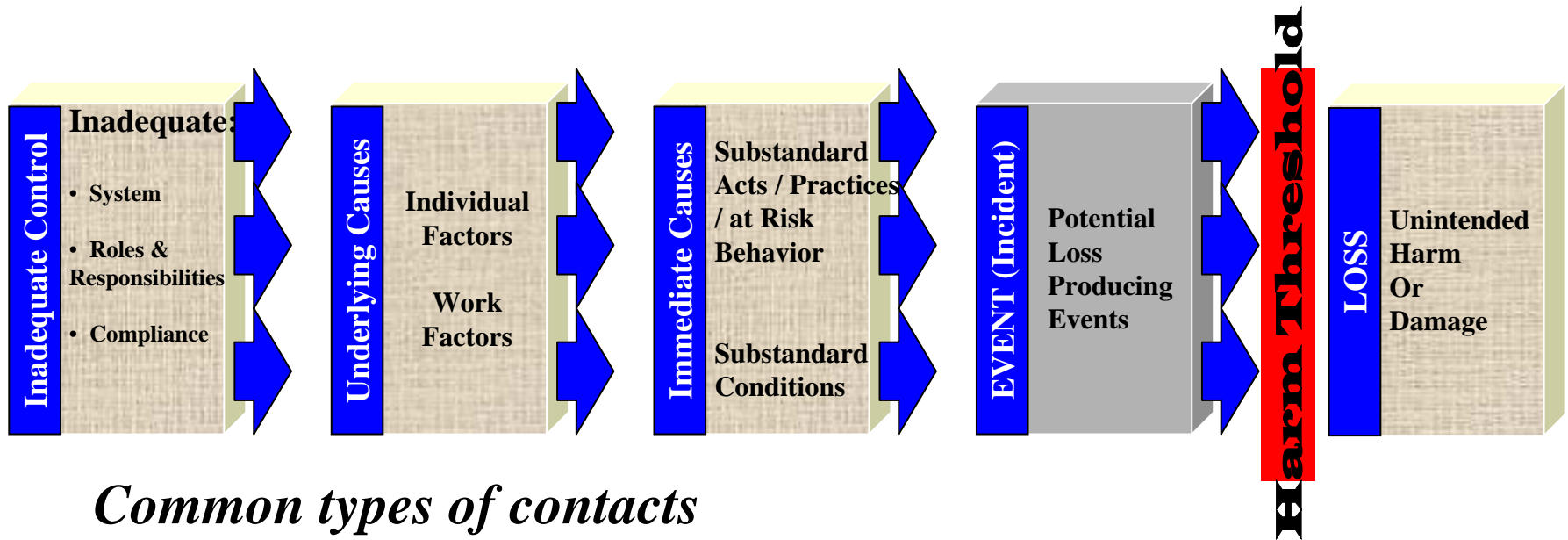
Problem Solving Model

Loss



- People
- Property
- Processes
- Environment

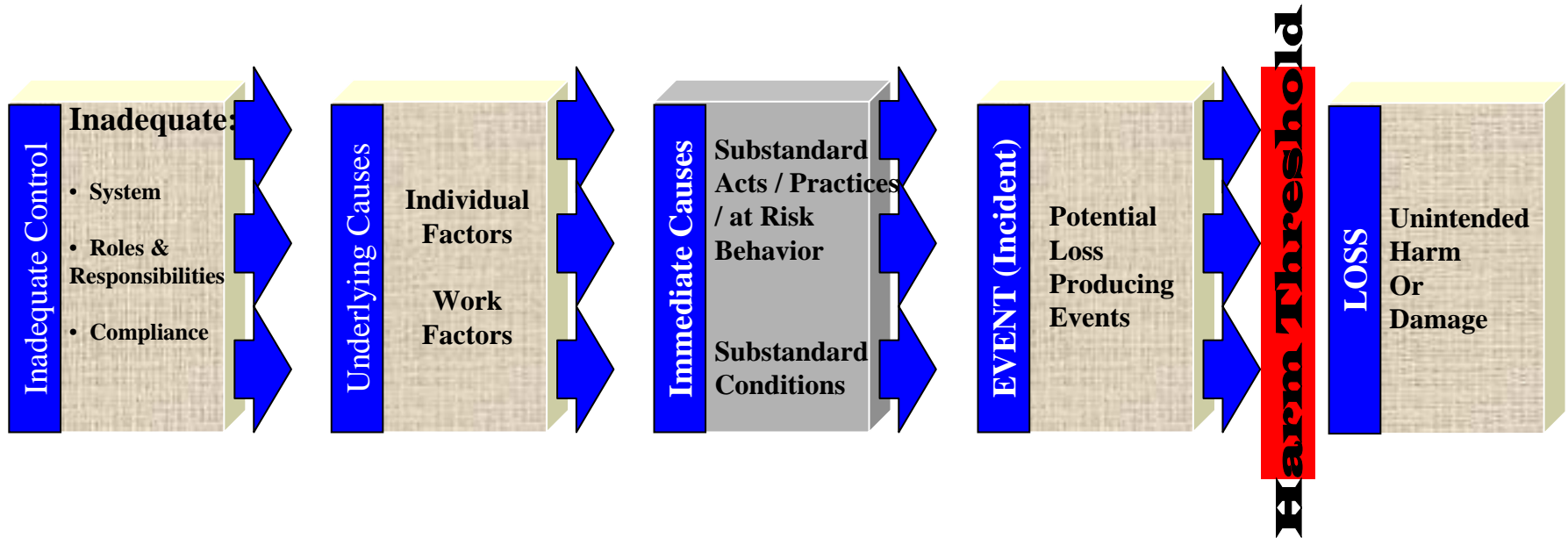
Event (Incident)



Common types of contacts

- ◆ Struck against
- ◆ Struck by
- ◆ Fall from a different level
- ◆ Fall from same level
- ◆ Caught by
- ◆ Caught in between
- ◆ contact with
- ◆ Overexertion

Immediate Causes



- Substandard Acts/Practices
- Substandard Conditions



IMMEDIATE CAUSES



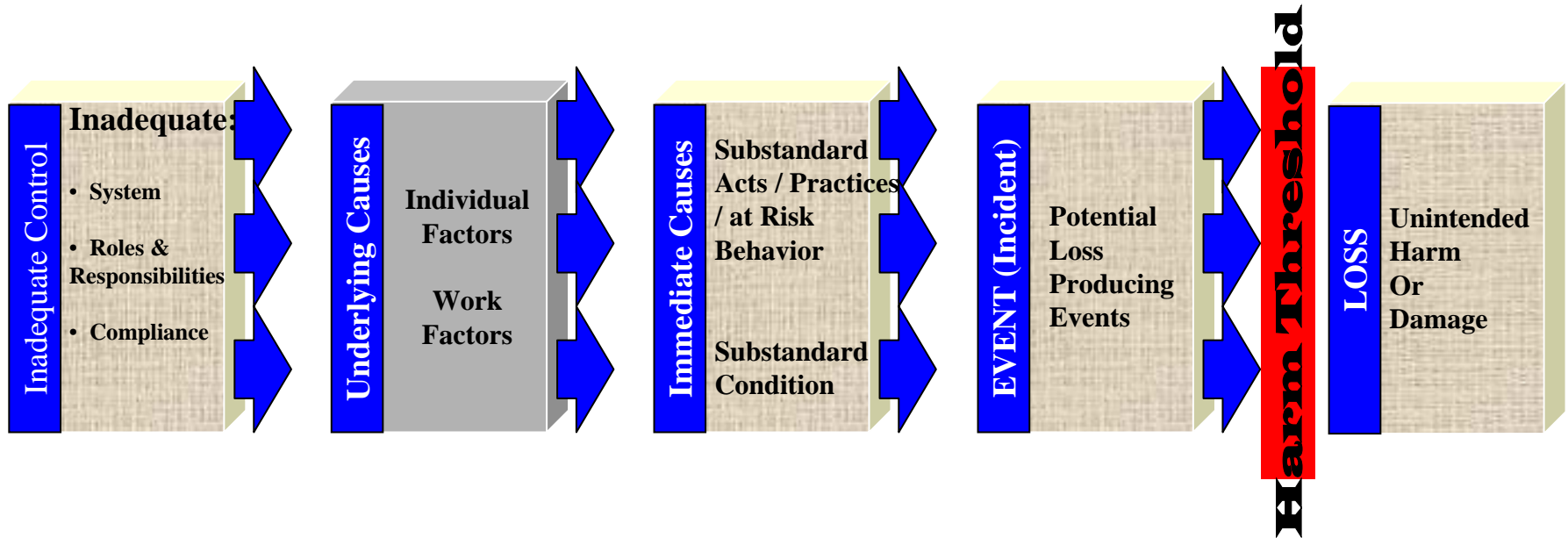
Substandard Acts or Practices

- Failure to warn
- Failure to obey rules
- Failure to follow procedures
- Removing safety devices
- Improper lifting
- Failure to use PPE
- Servicing operating equipment
- Horseplay

Substandard Conditions

- Inadequate guards/barriers
- Inadequate PPE
- Defective tools/equipment
- Congestion
- Inadequate warning system
- Disorder
- Excessive exposures
- Inadequate ventilation
- Inadequate illumination

Underlying Causes



- Personal Factors
- Job/System Factors



Underlying Causes

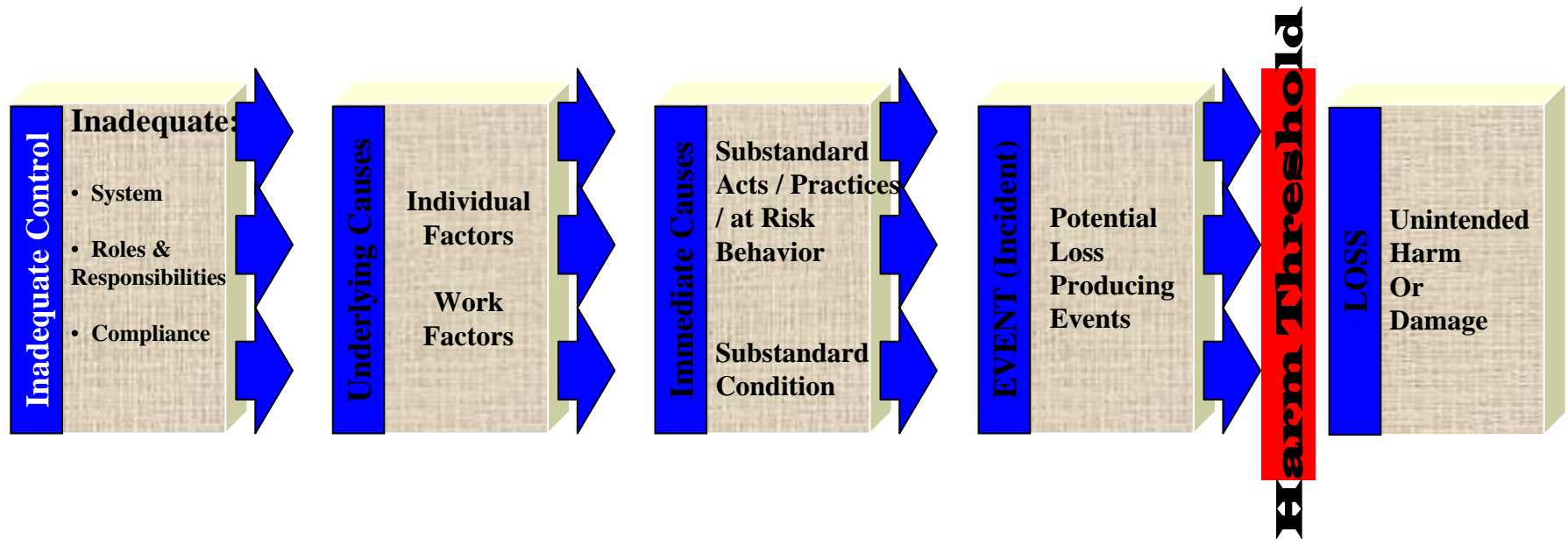
Personal Factors

- Inadequate capability
- Stress
- Lack of knowledge
- Lack of skill
- Improper motivation

Job Factors

- Inadequate leadership
- Inadequate engineering
- Inadequate purchasing
- Inadequate maintenance
- Inadequate tools & equipment
- Inadequate work standards
- Wear and tear
- Abuse and Misuse

Inadequate Control



- Inadequate system
- Inadequate system standards
- Inadequate compliance with standards



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The characteristics of the
management system which
would allow major loss to
occur can be identified by a
suitable auditing system.



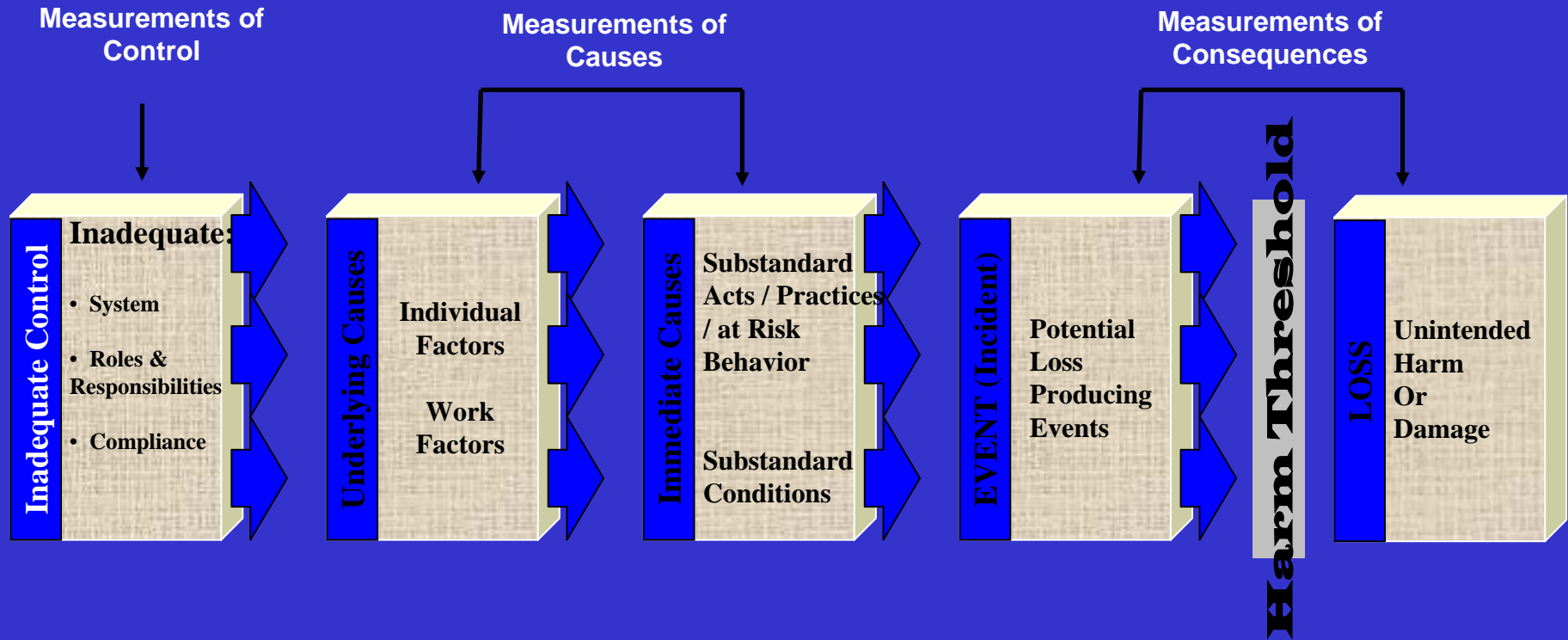


Measurements of Safety



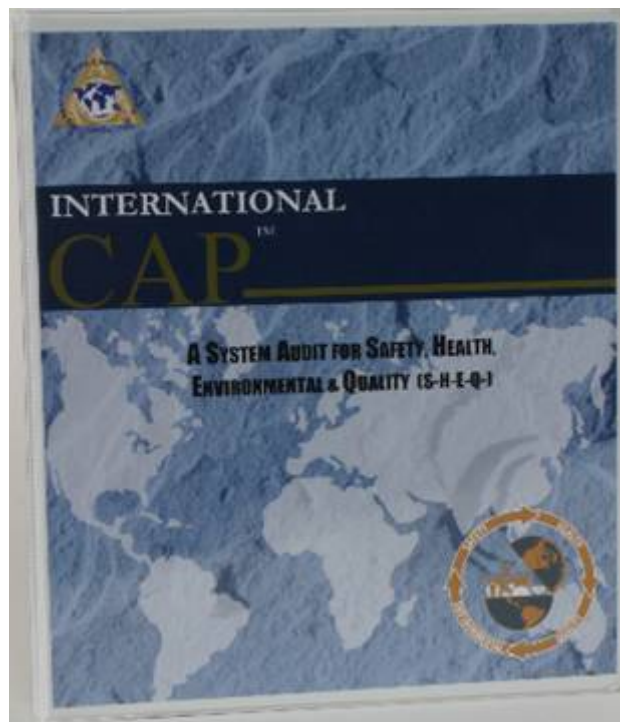
Control	Causes	Consequences
<ul style="list-style-type: none">◆ Planned Inspections◆ Job procedures and practices◆ Accident/incident investigation◆ Rules, regulations and practices◆ Protective equipment◆ Personal communications◆ Loss control meetings	<ul style="list-style-type: none">◆ Substandard acts and conditions◆ Remove safety devices◆ Inadequate guards or barriers◆ Personal and job/system factors◆ Lack of knowledge or skill◆ Inadequate maintenance◆ Abuse or misuse	<ul style="list-style-type: none">◆ Injury frequency rates◆ Injury severity rates◆ Damage severity rates◆ Production downtime◆ Waste per unit of production◆ Product losses◆ Total energy and water use rates◆ Financial losses

Measurements of Safety





CAPTM

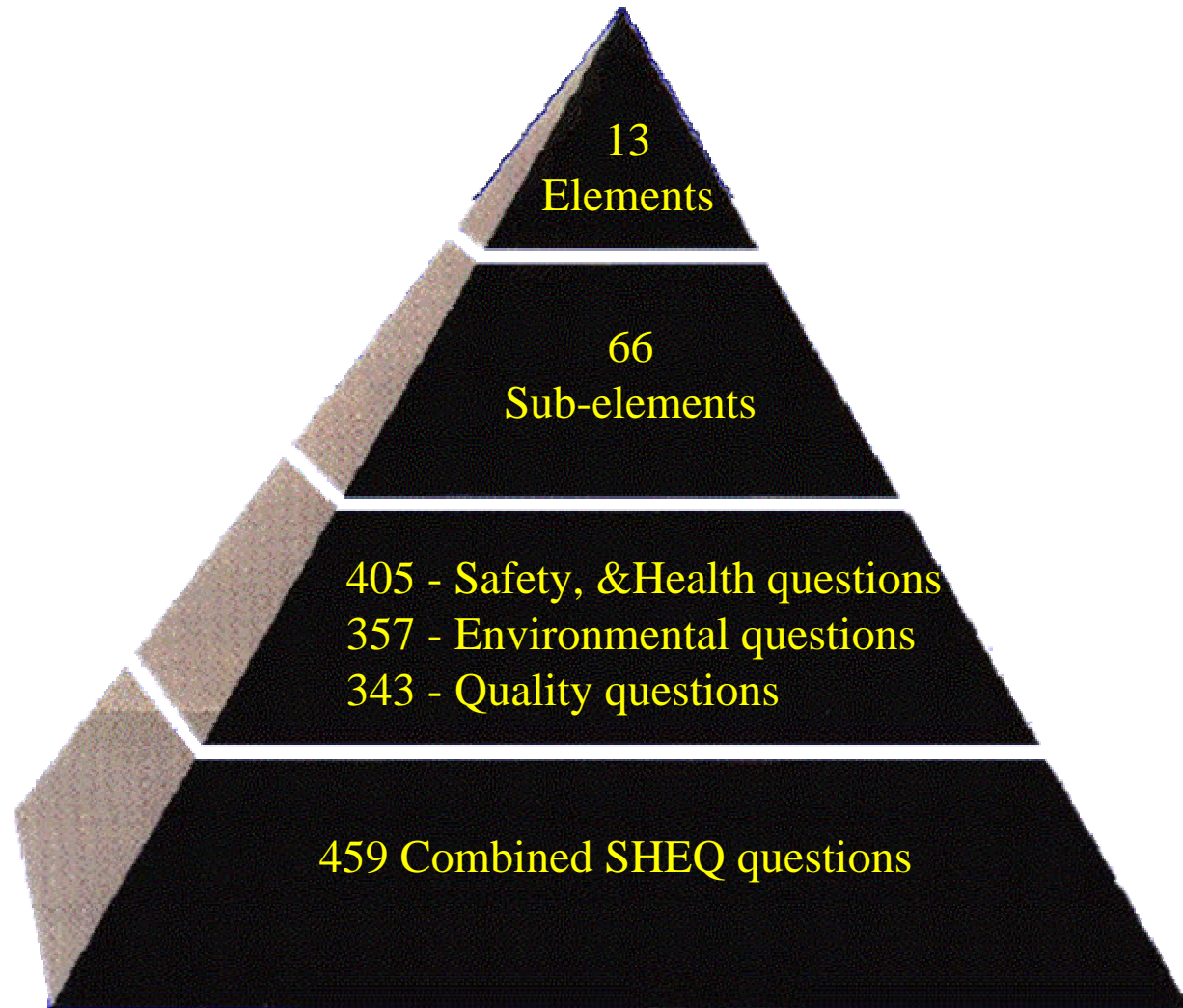


Common Audit Process





A Complete Audit System





CAPTM

- CAPTM was developed to measure the elements and activities that are “common” in managing Safety, Health, Environment and Quality.





CAPTM

- An integrated approach
- Based on years of experience
- Currently being used by BSI
- Regular updates
- Variety of industries
- Electronic version





CAPTM

Over 1,000 sites worldwide

- Mining (surface and underground)
- Chemical Processing
- Transportation
- Pulp/Paper
- Process/Petrochemical
- General Manufacturing
- Food Processing
- Pharmaceutical





CAPTM



- » Safety
- » Health
- » Environment
- » Quality



CAPTM

You determine
what to include (SHEQ)
as part of the scope
of your audit.





CAPTM

- A Measurement Tool
- International Standards
- International Acceptance
- A program “Blueprint”





CAPTM

Includes minimum requirements for recognition or certification:

- » OSHA's VPP
- » ISO 9000
- » ISO 14001
- » OHSAS 18000





CAPTM

13 Elements, each contain:

- Questions
- Identification of applicable standards
- Auditor Guidance
- Scoring
- References





CAP_{TM}

- Each Yes answer . . .
is a measure of activities in place.
- Each No answer . . .
is a suggested activity for
continuous improvement.





CAPTM

- The score is a percentage measure showing the opportunities for improvement.
- Subsequent audits measure the overall improvement during each period.





CAPTM Elements

1. PLANNING AND LEADERSHIP
2. COMPETENCY, TRAINING AND COMMUNICATION
3. JOB OPERATION ANALYSIS AND CONTROLS
4. CHANGE MANAGEMENT
5. PURCHASING SYSTEMS
6. WORK RULES AND OPERATING PERMITS
7. INSPECTIONS
8. OCCUPATIONAL HEALTH AND HYGIENE SYSTEMS
9. PERSONAL PROTECTIVE EQUIPMENT
10. INCIDENT INVESTIGATION AND ANALYSIS
11. EMERGENCY PREPAREDNESS
12. MEASUREMENT, MONITORING AND AUDITS
13. CORRECTIVE AND PREVENTIVE ACTION SYSTEMS





CAPTM For Your Management System

1. Identifies work needed to improve
2. Measures work being done to improve
3. Objectively quantifies work being done to prevent incidents and accidents
4. Identifies the vast majority of management system deficiencies which could lead to incidents and accidents.
5. Finally and very importantly, CAPTM assists the site in gaining compliance with external management system standards such as ISO 14001, ISO 9000, OHSAS 18000 and OSHA's VPP.





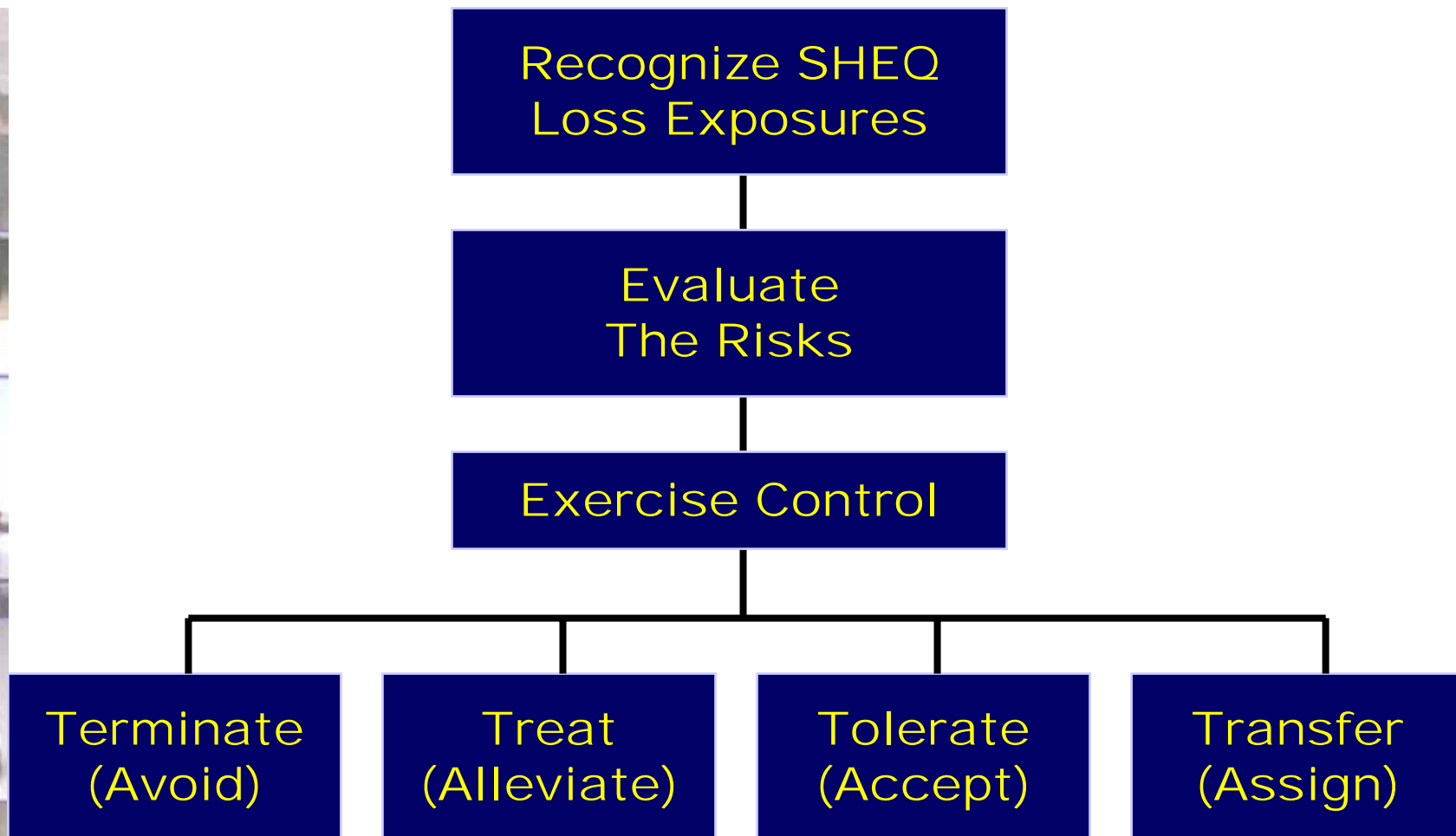
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The same characteristics which
allow major losses also manifests
itself in other areas such as
productivity, quality, etc....





S-H-E-Q Management System





COSTS OF LOSS ICEBERG



Injury and Illness Costs

- Medical
- Lost Time
- Compensation

Property, Process, Material, and Miscellaneous Costs

(6-53 times as much)

- Production Losses
- Building Damage
- Plant Damage
- Tool and Equipment Damage
- Material Damage
- Legal Fees
- Emergency Supplies
- Clerical Costs
- Investigation Costs
- Replacement Costs



LOSS VS. SALES VOLUME

Sales Required to Cover Losses

10,000	1,000,000	500,000	250,000	200,000
50,000	5,000,000	2,500,000	1,250,000	1,000,000
100,000	10,000,000	5,500,000	2,500,000	2,000,000
200,000	20,000,000	10,000,000	5,000,000	4,000,000
500,000	50,000,000	25,000,000	12,000,000	10,000,000
1,000,000	100,000,000	50,000,000	25,000,000	20,000,000
<hr/>				
	1%	2%	4%	5%
<hr/>				
Profit Margin				



*Our experience with International Customers
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When Professional management skills are
applied systematically to the control of
losses, the desired results **WILL BE
ACHIEVED.**

Effective loss control management
improves the general management system
overall, and spills over into other areas of
the organization.





Any Questions

